

Amendments to the Specification:

Delete the title beginning at page 1, line 1 and replace it with the following new title:
METHODS FOR GENERATING LIGAND PROFILES FOR CELLS

Replace the paragraph beginning at page 13, line 11 with the following amended paragraph:

Fig 5A is a post-source decay/collisional-induced dissociation spectrum of an individual EPT from the analysis illustrated in Fig. 4B ($m/z=1957.8$). Fig. 5B is a table depicting a sequence analysis of that EPT based on the parent ion mass, the daughter ion fragments, and the immonium ion composition (the repeated sequence YVDDTQFVRFDSDAASQRM is SEQ ID NO:1). Fig. 5C is a printout of the results of a search of the dbest database using the TBLASTN function from National Library of Medicine GENBANK ~~Genbank~~ server to identify a corresponding EST in the database (the repeated sequence VDDTQFVRFDSDAASQRM is SEQ ID NO:2).

Replace the paragraph beginning at page 102, line 27 with the following amended paragraph:

The following example describes the generation of hsp 70 EPT profiles. Hsp 70 ~~hsp-70~~ is a member of the HSP family of stress proteins that is present in various cellular compartments. It is a powerful multi-ligand receptor for the selective profiling of EPT libraries of cells in which hsp 70 is expressed (e.g., liver cells).

Replace the paragraph beginning at page 103, line 3 with the following amended paragraph:

Hsp 70 ~~hsp-70~~ is purified from liver cells as described (Peng, 1997, *J. Immunol. Methods* 204:13). Briefly, liver cells are homogenized in 40 ml hypotonic buffer (30 mM NaHCO_3 , 0.1 mM phenylmethylsulfonyl fluoride, pH 7.1), and a 100,000 x g supernatant is obtained. The sample buffer is changed to 20 mM Tris-acetate, 20 mM NaCl, 15 mM β -mercaptoethanol, 3

mM MgCl₂, 0.5 mM phenylmethylsulfonyl fluoride, pH 7.5, using a PD-10 column (SEPHADEX ~~Sephadex~~ G-25). The sample is applied directly to an ADP-affinity column which has been equilibrated with the same buffer described above. hsp 70 elution is accomplished using 3 mM ADP at room temperature. The hsp 70 is next purified using a strong anion exchange column (Mono Q) and eluted with a 20-600 mM NaCl gradient. EPT ligands can be extracted from the hsp 70 multi-ligand binding receptor using acid elution as described previously for MHC-associated EPT profiles. Once the EPTs are extracted, generation of the EPT profile is identical to the procedures described for MHC-associated EPT profiles.

Delete the abstract at page 117 and replace it with the following new abstract:

Disclosed are methods of generating ligand profiles for a given type of cell by generating from a lysate of the cell a first profile distinguishing among a first plurality of ligands (bound to a first type of multi-ligand binding receptor) on the basis of at least one chemical or physical attribute and a second profile distinguishing among a second plurality of ligands (bound to a second type of multi-ligand binding receptor) on the basis of the same at least one chemical or physical attribute.